GRAPHIC ARTS
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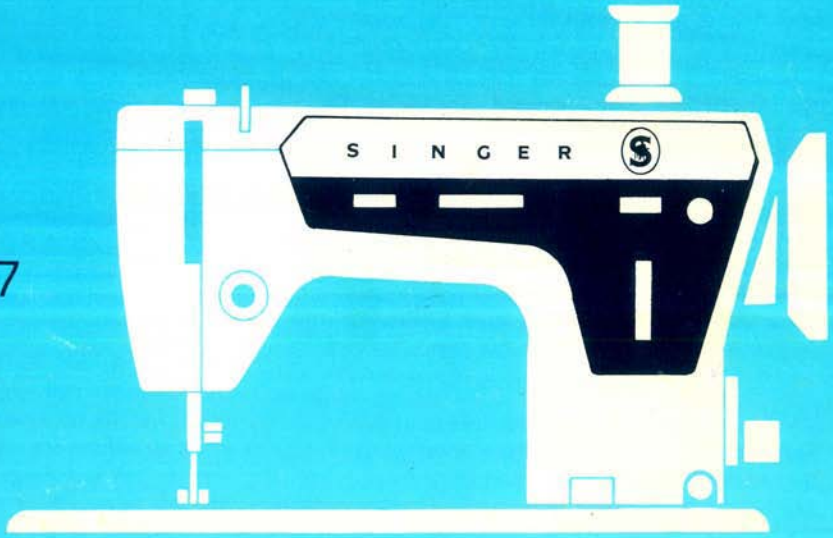
Instructions for using

SINGER® Zig-Zag Sewing Machine



Model 287

Enjoy Carefree Sewing!

Congratulations·····

You are about to discover the wonderful pleasure of sewing with your new SINGER sewing machine. We know you are eager to get started on a sewing project···but we urge you to become familiar with this book before you begin. It is designed to help you get the benefit of all the capabilities of this machine. Especially, we recommend that you keep the following points in mind.

DO choose the correct needle and thread for your fabric—if either is the wrong size or type, you may encounter broken or knotted thread or faulty stitching. The Fabric, Thread and Needle Table on page 5 will help you make a perfect choice.

DON'T sew with a bent or blunt needle. If the needle is damaged—or improperly inserted in the machine—it can cause skipped stitches. See page 6 for instructions.

DO follow the instructions on pages 6 to 8 for threading the machine.

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DON'T forget to hold the bobbin properly when you thread the bobbin case. Page 8 tells you how to do this correctly.

DO become familiar with the instructions for regulating stitch length (page 13), presser-foot pressure (page 14), and thread tension (page 15). Take advantage of the capability of your sewing machine!

DON'T allow lint or thread ends to accumulate in the lower thread area—they can cause jamming or excessive noise. Clean and lubricate machine regularly, as instructed on page 39

DO remember that expert, dependable SINGER Service is always available. If your sewing machine should require maintenance or repair, be sure to call your Singer Sewing Centre or Authorized Singer Dealer. You will find the number listed under "Singer Company" in your telephone book.

Above all, *do* enjoy sewing!

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1. Getting to Know Your Machine

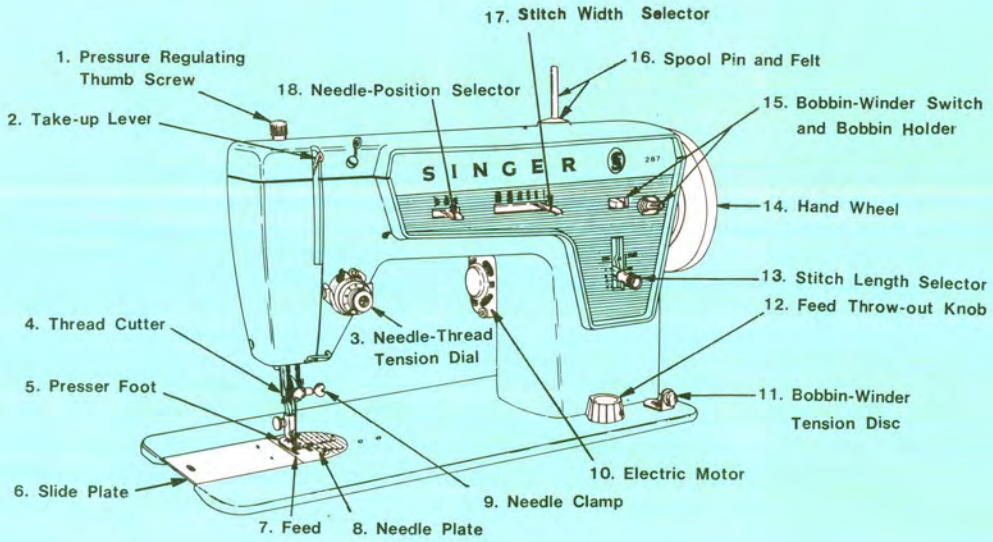
principal parts and what they do

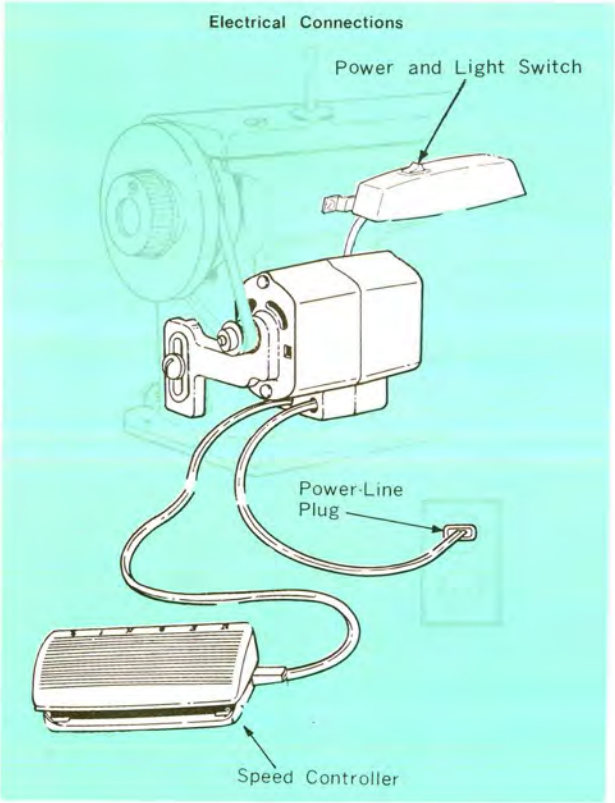
1. **Pressure Regulating Thumb Screw** regulates presser-foot pressure on the fabric.
2. **Take-up Lever** controls flow of needle thread.
3. **Needle-Thread Tension Dial** lets you select the right tension for your fabric, stitch, and thread. The numbers eliminate guesswork in duplicating settings.

   To increase tension, turn dial to higher number.

   To decrease tension, turn dial to lower number.
4. **Thread Cutter** located on presser bar
5. **Presser Foot** holds fabric against feed. Presser-foot lifter at rear of machine (not shown) raises and lowers the presser foot.
6. **Slide Plate** opens easily, provides access to bobbin case latch for removal and replacement of the bobbin.
7. **Feed** moves fabric under the presser foot.
8. **Needle Plate** provides working surface around the needle. Guidelines on plate help you keep seams straight.
9. **Needle Clamp** holds needle.
10. **Electric Motor** supplies power to machine through a belt to the hand wheel. Motor is activated by a speed controller.
11. **Bobbin-Winder Tension Discs** regulate thread tension for winding bobbins.
12. **Feed Throw-out Knob** lowers feed below needle plate for free-motion darning and embroidery.
13. **Stitch Length Selector** allows you to choose from a variety of stitch lengths, including fine adjustments for close zig-zag stitching. Raising the lever permits reverse stitching.
14. **Hand Wheel** controls movement of take-up lever and needle. *Always turn it toward you.*
15. **Bobbin-Winder Switch and Bobbin Holder** let you fill the bobbin with thread quickly and easily.
16. **Spool Pin and Felt.** Pin holds thread spools of various sizes. Felt helps thread unwind smoothly.
17. **Stitch Width Selector** controls the width of zig-zag stitching and positions the needle for straight stitching.
18. **Needle-Position Selector** places needle in either left, centre or right stitching position. Use centre position for straight stitching.

PRINCIPAL PARTS OF MACHINE 287N





2.Getting Ready to Sew

preliminary steps

CONNECTING MACHINE

Before plugging in your machine, be sure that the electrical information on the motor bracket conforms to your electrical power suppy.

To connect the machine, insert the power-line plug into your electrical outlet.

OPERATING MACHINE AND CONTROLLER

To turn on both machine and sewing light, press the switch located at top of light.

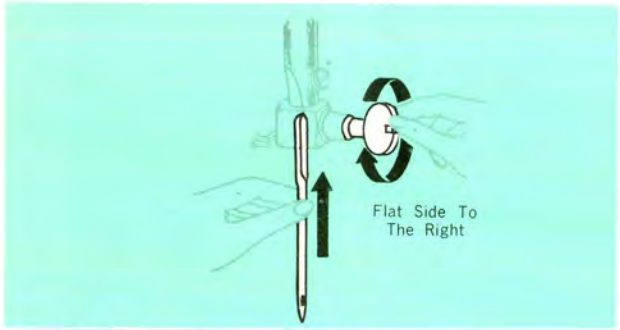
CAUTION: *We recommend that you turn off the power and light switch before changing needles and presser feet, removing needle plate, and when leaving the machine unattended. This eliminates the possibility of starting the machine by accidentally pushing the speed controller.*

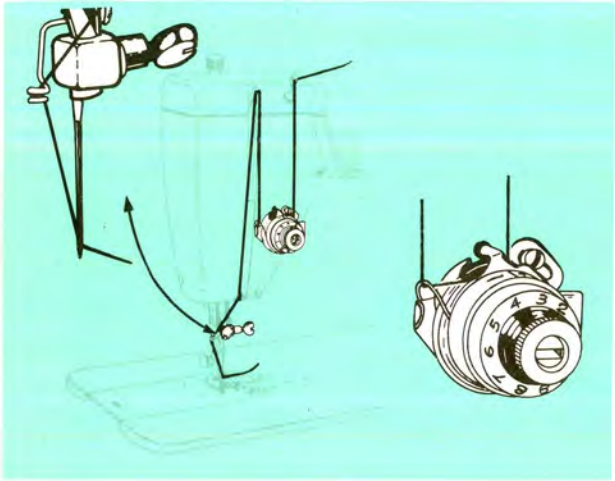
To run the machine, press the speed controller. The harder you press, the faster the machine will sew.

To stop the machine from sewing, remove pressure from speed controller.

fabric, thread, needle and stitch length table

FABRICS	THREAD SIZES	cat 2020(15×1) NEEDLE SIZES	STITCH LENGTH SETTING
DELICATE—tulle, chiffon, fine lace, silk, organdy, fine tricot	Fine mercerized cotton Fine synthetic thread	9	15 to 20
LIGHTWEIGHT—batiste, organdy, jersey, voille, taffeta, silk crepe, plastic film	50 mercerized cotton "A" Silk Synthetic thread Polyester core/cotton	9~11	12 to 15 (8 to 10 for plastic)
MEDIUM WEIGHT—gingam, percale, pique, linen, chintz, faille, satin, fine corduroy, suitings	50 mercerized cotton 60 cotton "A" Silk Synthetic thread Polyester core/cotton	11~14	12 to 15
MEDIUM HEAVY—gabardine, tweed, sailcloth, denim, coatings, drapery fabrics	Heavy-duty mercerized cotton 40 to 60 cotton Synthetic thread	16	10 to 12
HEAVY—overcoatings, dungaree, upholstery fabrics, canvas.	Heavy-duty mercerized cotton 24 to 40 cotton Synthetic thread	18	6 to 10





NEEDLES AND THREAD

This machine uses needles Catalogue 2020 (15× 1), available in sizes 9, 11, 14, 16 and 18.

For perfect stitching, select correct needle and thread to correspond with fabric according to the table on page 5. Be sure to use like threads for both needle and bobbin.

CHANGING THE NEEDLE

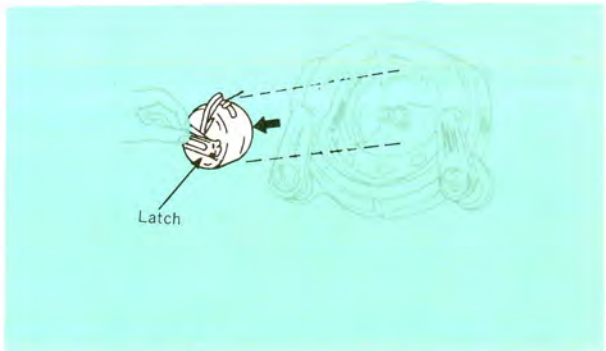
Raise needle bar to its highest point by turning the hand wheel toward you. Loosen the needle clamp screw and insert needle into clamp as far as it will go, *with the flat side of the needle to the right.* Then tighten needle clamp screw.

NEEDLE THREADING

1. Turn hand wheel toward you to raise take-up lever to its highest position.
2. Raise the presser foot.
3. Lead thread through all the threading points shown at right and thread needle from left to right.
4. Draw about 4 inches of thread through eye of needle.

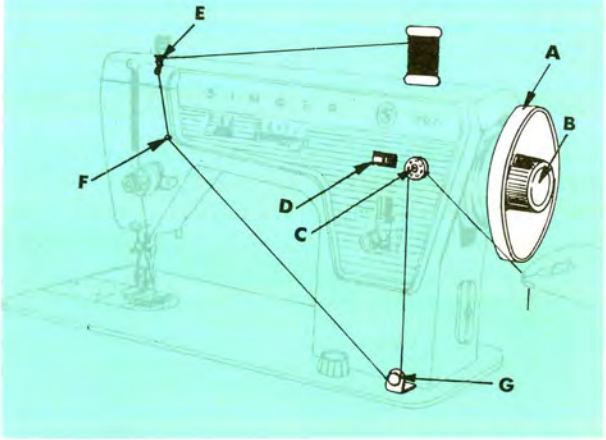
REMOVING THE BOBBIN

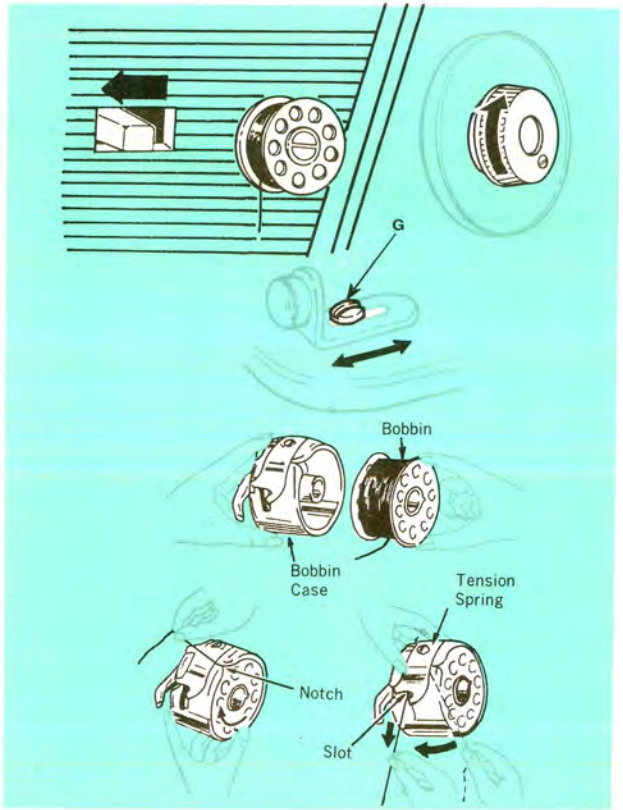
1. Raise presser foot and turn hand wheel toward you until needle is at its highest point.
2. Draw slide plate to the left.
3. Reach down with left hand, open bobbin case latch and lift out bobbin case.
4. Release latch and remove bobbin from bobbin case.



WINDING THE BOBBIN

1. To stop motion of needle, hold hand wheel **A** and loosen clamp stop motion screw **B**, by turning it toward you.
2. Place bobbin on bobbin winder spindle **C** and move bobbin winder switch **D** to the right.
3. Place spool of thread on spool pin, and carry the thread through the thread guides **E** and **F**, and between bobbin winder tension discs **G** as shown at right.
4. Draw thread up and through the hole of bobbin.
5. Hold thread end until a few coils are wound and break off the thread end.





WHEN BOBBIN IS FULL

Move bobbin winder switch to the left, remove bobbin and retighten stop motion screw.

If bobbin does not wind evenly, loosen screw **G** which holds tension bracket in position.

- Move bracket away from you if bobbin winds high to the front.
- Move bracket toward you if bobbin winds high to the back.

THREADING BOBBIN CASE

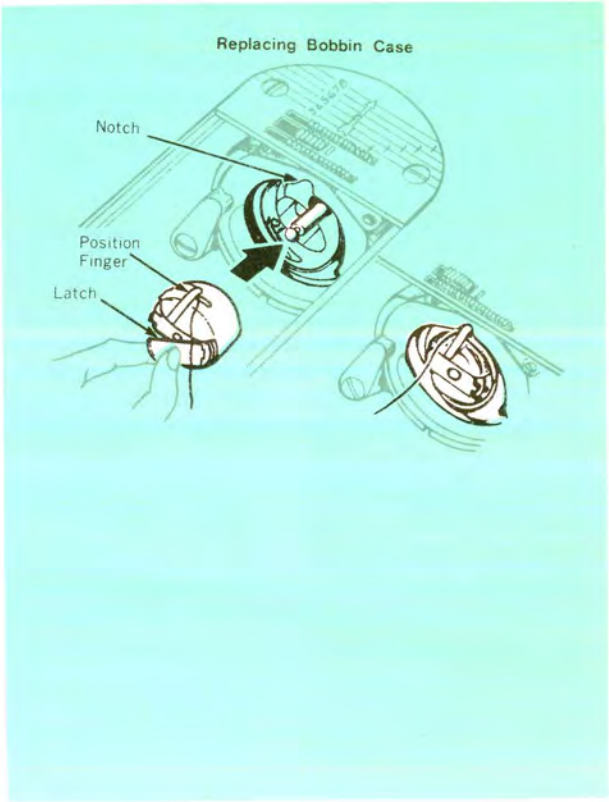
1. Hold bobbin so that thread unwinds in the direction as shown at left and place bobbin in the bobbin case.
2. Pull thread into **notch**, draw it under **tensionspring** and into slot. Allow about 4 inches (10cm) of thread to hang freely from bobbin case.

REPLACING BOBBIN CASE

1. Raise needle to its highest position.

2. Hold bobbin case by latch and place it on the stud of the shuttle allowing position finger to enter notch at top of shuttle body.

3. Release latch and press bobbin case in until it clicks into place. Then close slide plate.

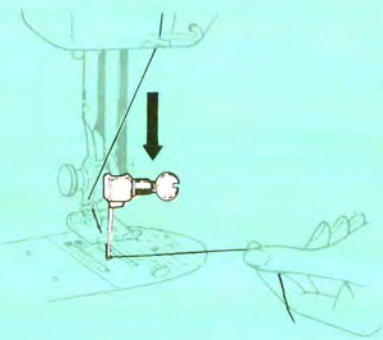


RAISING THE BOBBIN THREAD

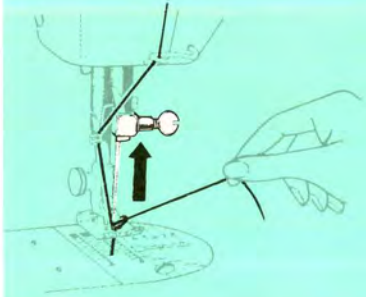
Now that you have wound the bobbin and threaded the needle, you will need to raise the bobbin thread through the hole in the needle plate.

1. Hold needle thread lightly with left hand and turn hand wheel slowly toward you so that needle enters needle plate.
2. Continue turning hand wheel and holding needle thread until needle rises and brings up bobbin thread in a loop.
3. Undo the loop with your fingers.
4. Place both needle and bobbin threads under the presser foot, and draw them diagonally to the back of the machine.

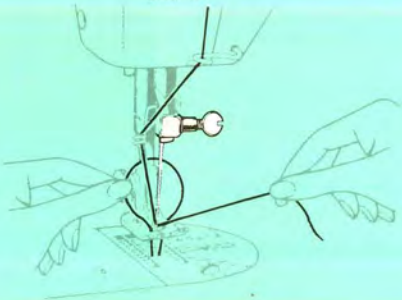
Step 1



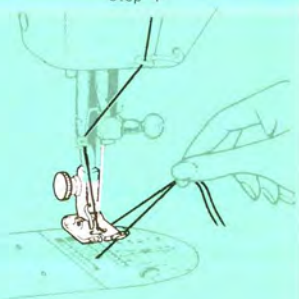
Step 2



Step 3



Step 4



3.Straight Stitching

preparation

Before moving the stitch width selector, make sure the needle is above the needle plate.

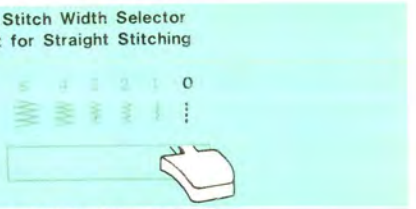
SETTING THE MACHINE

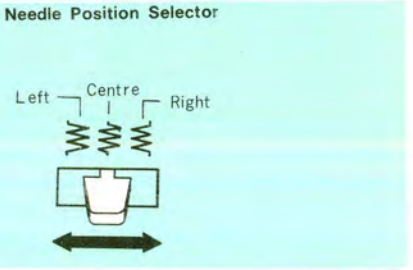
1. Press down on stitch width selector lever and slide lever to right until groove in lever is directly under the straight-stitch symbol ¦ (setting **0**).

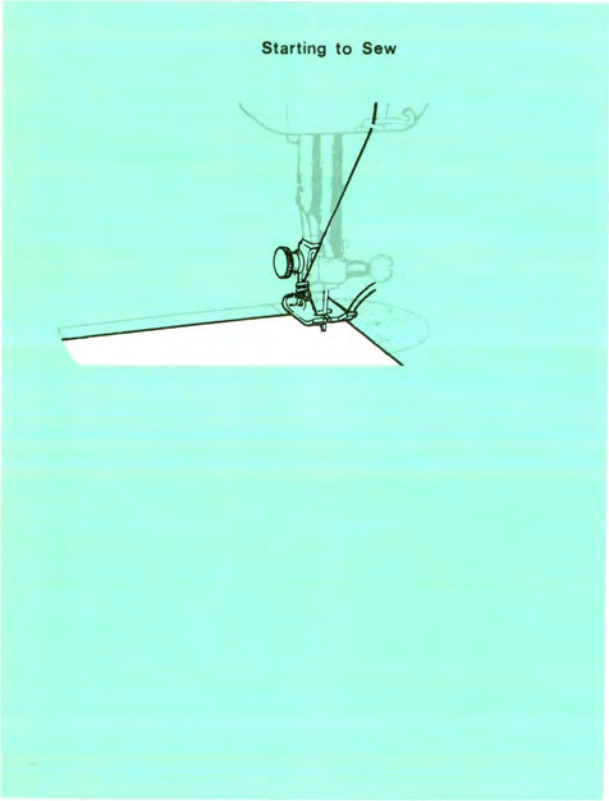
   For your convenience, the position numbers **0**,**1** ,**2** ,**3** ,**4**, **5** will be used throughout this book when the instructions require stitch width settings.

2. For ordinary stitching, centre needle position is preferred. To meet special requirements, a line of stitching may be placed to right or left of centre.

3. Set stitch length selector for desired stitch length. (See page 13 for instructions.)







starting to sew

1. Position the needle in the fabric where desired for stitching start.
2. Lower the presser foot and start the machine.

To sew perfectly on a wide variety of fabrics adjust stitch length, pressure and thread tension as instructed on following pages.

adjusting selectors for your fabric

SETTING STITCH LENGTH

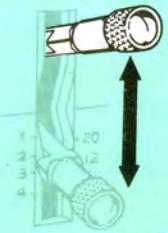
The stitch length selector regulates the length of both straight and zig-zag stitches. The numbers at the right of the lever represent the number of stitches per inch: *the higher the number, the shorter the stitch.* The numbers at the left of the lever represent stitch length in millimetres : *the higher the number, the longer the stitch.* Generally, shorter stitches are best for lightweight fabric; longer ones for heavy fabric.

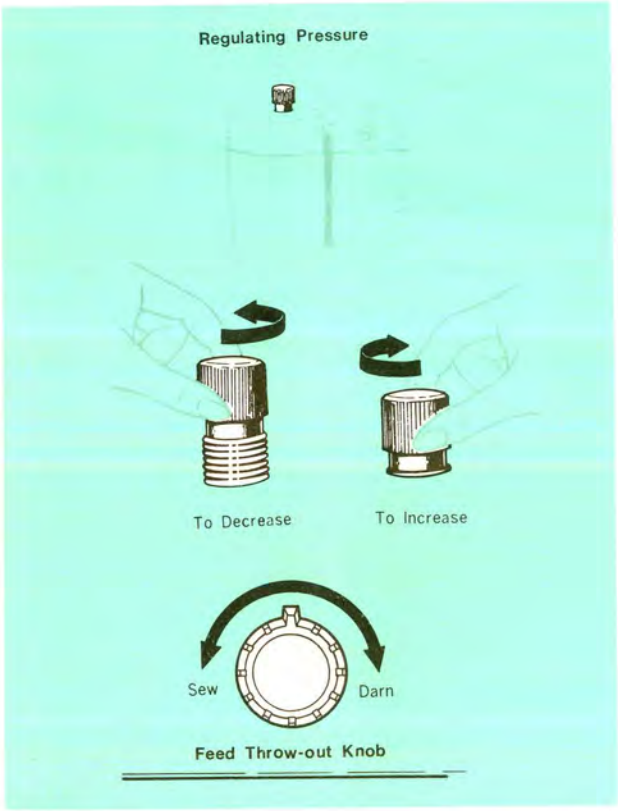
Setting Selector

1. Loosen thumb nut by turning to left.
2. Position lever for desired stitch length.
3. Tighten thumb nut by turning to right.

For reverse stitching, simply raise the selector lever as far as it will go. Do not loosen thumb nut to reverse.

Setting Stitch Length





REGULATING PRESSURE

The pressure screw regulates the pressure that the presser foot exerts on the fabric. Correct pressure is important to ensure smooth and even feeding of the fabric. Generally, heavy fabric requires heavy pressure; lightweight fabric, light pressure. But fabric texture must also be considered. Soft fabrics, for example, require less pressure than crisp fabrics.

Lower the presser foot before setting pressure.

- **To decrease pressure,** turn screw upward (counterclockwise).
- **To increase pressure,** turn screw downward (clockwise).

FEED THROW-OUT KNOB

- For regular stitching, turn knob to left position.
- For embroidering and darning, turn knob to right. to lower the feed below needle plate so that it will not feed the material.

REGULATING THREAD TENSION

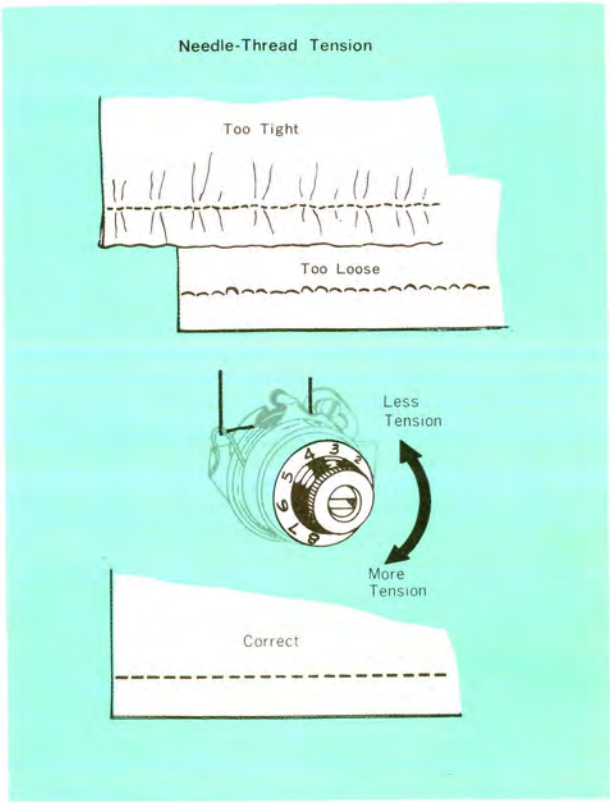
Correct tension is important because too much or too little will weaken your seams or cause the fabric to pucker. Make a test sample with the fabric and thread you plan to use. A perfect stitch will have the needle and bobbin threads locked between the two layers of fabric with no loops on top or bottom and no puckers.

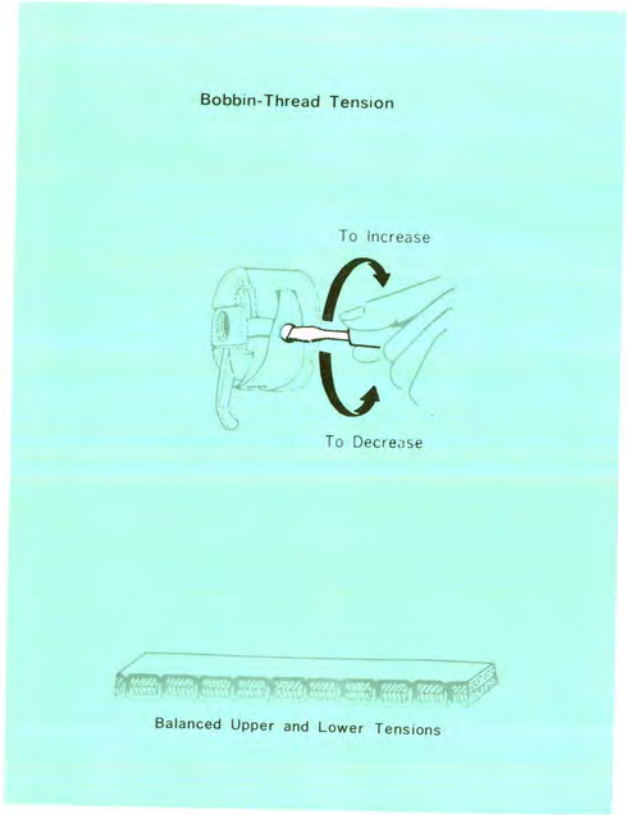
Needle-Thread Tension

The tension dial regulates the degree of tension on your needle thread. Set it according to the type of thread and fabric you use. The numbers on the dial eliminate guesswork in duplicating settings.

If the stitches in your sample look loose, increase needle-thread tension. If the fabric puckers, decrease tension.

- **To increase tension,** turn dial to a higher number.
- **To decrease tension,** turn dial to a lower number.





Bobbin-Thread Tension

Bobbin-thread tension is controlled by a screw located on the bobbin case. You will seldom need to adjust it since it is usually possible to obtain the correct balance by adjusting needle-thread-tension alone

Should it become necessary to adjust bobbin-thread tension, use the small screwdriver that comes with your machine. A very slight turn will produce a noticeable change in bobbin-thread tension.

- **To increase tension,** turn screw clockwise.
- **To decrease tension,** turn screw counter-clockwise.

A perfectly locked stitch results with upper and lower tensions balanced so that needle and bobbin threads are drawn equally into fabric.

sewing a seam

PIN BASTING

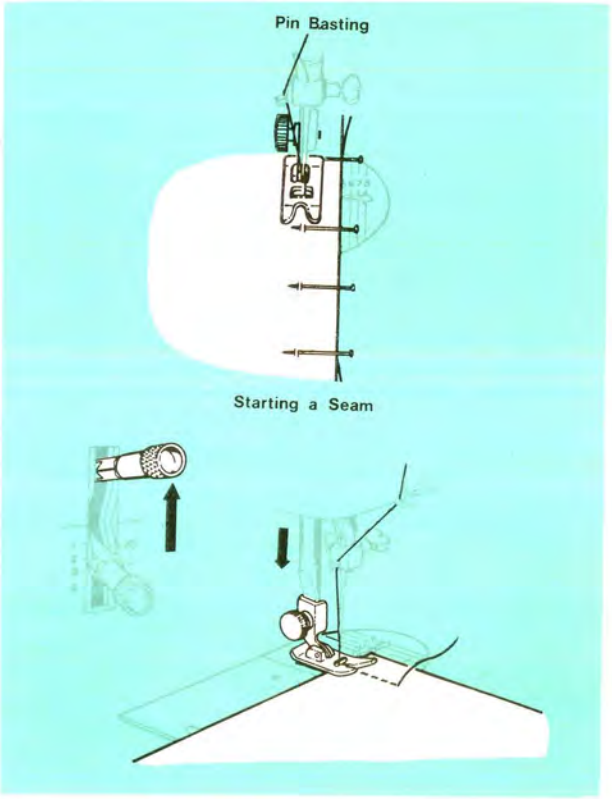
Pin basting is a time-saver and can be used in place of hand basting when you are straight stitching seams in easy-to-handle fabric.

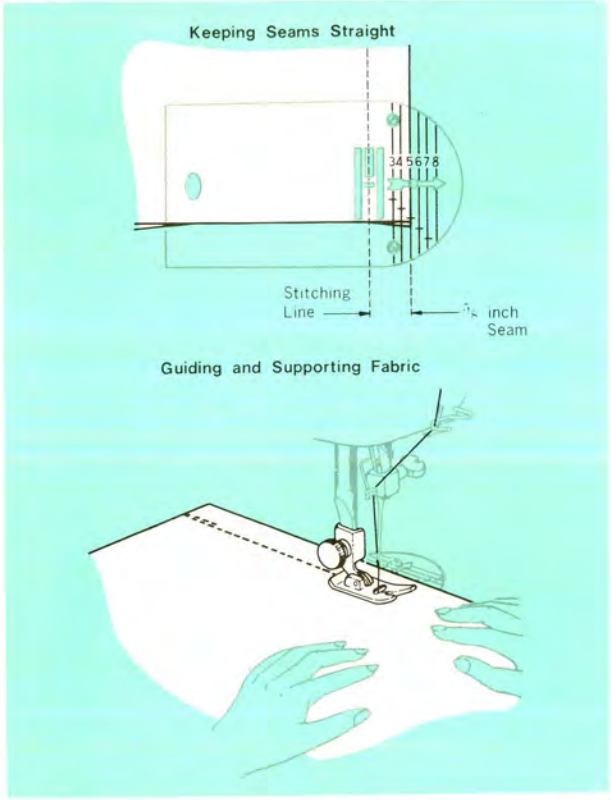
Use fine pins and place them so that:

- They are at right angles to the presser foot and just nip into the fabric at the stitching line.
- They do not extend under both sides of the presser foot. *Never place pins on the underside of the fabric in contact with the feed.*

STARTING A SEAM

1. With presser foot raised, turn hand wheel toward you to position the needle in fabric about 1/2 inch (1cm) from starting edge. Lower the presser foot.
2. Set selector for desired stitch length.
3. Raise stitch length selector to reverse and backstitch to edge of fabric for reinforcement.
4. Lower stitch length selector for forward stitching and stitch.





KEEPING SEAMS STRAIGHT

To keep the seam straight, use one of the numbered guidelines on the needle plate. The numbers indicate distance in eighths of an inch, from the needle. If you want a 5/8 inch (1.5cm) seam, for example, line up your fabric with the number 5 guideline.

GUIDING AND SUPPORTING FABRIC

Most fabrics need only to be guided in front of the presser foot as shown. Some fabrics, however, require support while being stitched:

- For filmy sheers, knits, tricots, etc., apply *gentle* tension by holding fabric in front and back of the presser foot.
- For stretch fabrics, apply *firm* tension front and back when stitching in the same direction as the stretch. For seams not on the stretch direction, stitch in the conventional manner, guiding fabric in front of the presser foot.

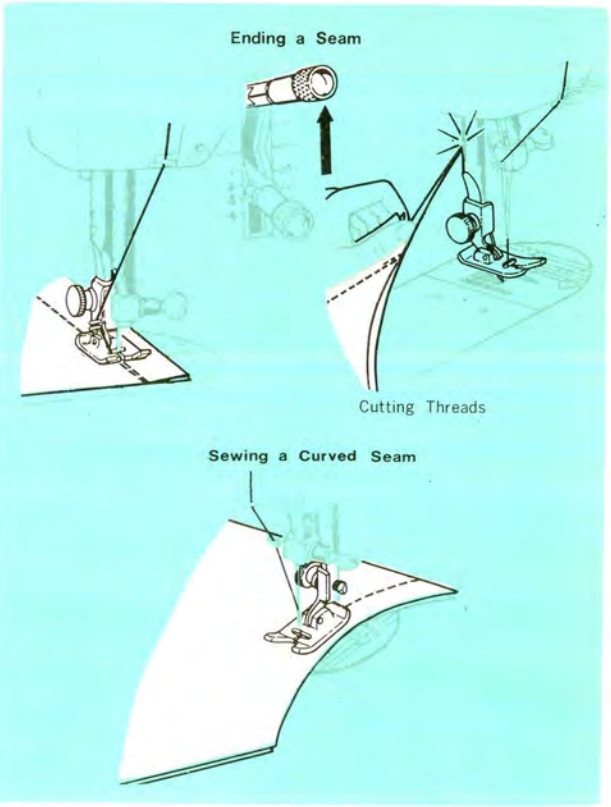
REINFORCING END OF SEAM

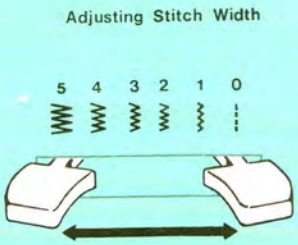
1. Stitch to the edge of the fabric.
2. Raise stitch length selector as far as it will go and backstitch to reinforce end of seam. Then lower stitch length selector for forward stitching.
3. Raise needle to its highest position, raise the presser foot, and remove the fabric by drawing it to the back and left.
4. Cut threads on thread cutter at rear of presser bar.

CURVED SEAMS

When sewing armhole and neckline seams, you usually will be sewing on a curve. To do this, follow the same procedure as for sewing a straight seam *except:*

- Use a short stitch length for elasticity and strength. For example, if you use 12 stitches to the inch for straight seams, select 15 to 20 per inch for curved seams in the same fabric.





4. Zig-Zag Stitching

You will find the zig-zag stitch that is built into your machine ideal for many of your sewing applications. To use this stitch, simply follow the instructions below and on following pages.

adjusting selectors

ADJUSTING STITCH WIDTH

Before moving selector, make sure the needle is above fabric.

To produce a zig-zag pattern, depress and slide stitch width selector lever to any zig-zag setting between (narrow-position **1**) and (wide-position **5**).

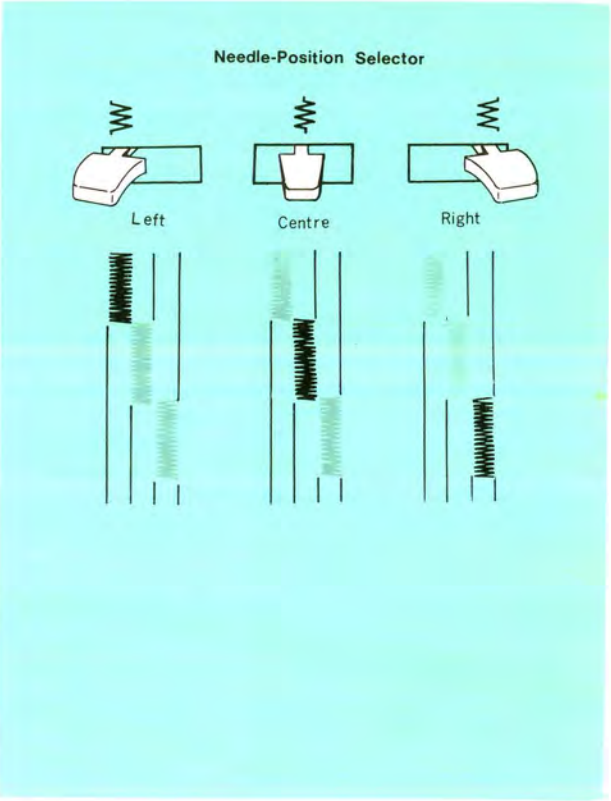
For your convenience, the position numbers **0, 1, 2, 3, 4, 5** will be used throughout this book when instructions require stitch width settings.

ADJUSTING NEEDLE POSITION

Needle position setting of centre places stitching in central needle position. Settings left and right place stitching in left or right needle position at stitch widths of less than maximum.

Centre needle position is preferred. Left or right settings are used only when special placement of stitching is desired. For example: buttonholes, button sewing.

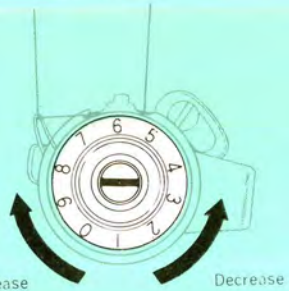
To avoid damage to needle and fabric, do not make any selector adjustments with the needle in the fabric.



adjusting needle-thread tension

Zig-zag stitching requires less needle-thread tension than straight stitching; and closed zig-zag stitching requires even less tension than open zig-zag stitching. Furthermore, the wider the stitch, the lighter the tension on the thread must be. Thus, stitch width **5** requires the least tension; narrower stitching requires more.

Make a test sample with the fabric and thread you plan to use and notice the stitching. If the stitching looks too taut, or if the fabric is puckering, lower the needle-thread tension by turning the tension dial to a lower number.



Adjusting Needle-Thread Tension

Too Tight

Correct

ADJUSTING STITCH LENGTH

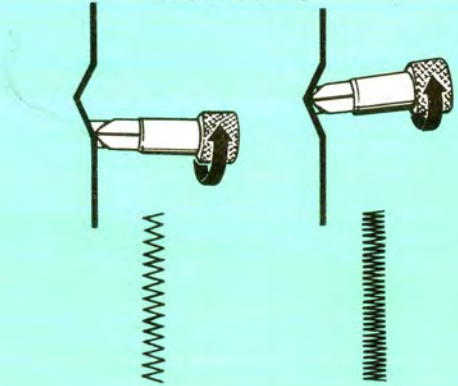
For open zig-zag stitching, choose any stitch length from **6** to **20,** depending on how open you wish the stitching to be. If you wish a closely spaced zig-zag stitch:

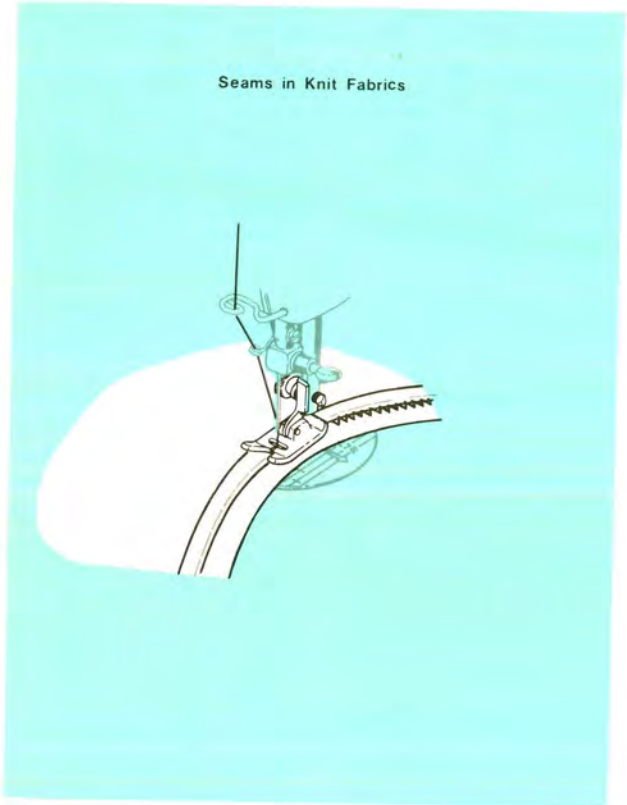
1. Move stitch length selector to **20**.
2. Run the machine at slow speed and gradually tighten thumb nut by turning it clockwise, until stitches are closely spaced and form a smooth surface.

NOTE: For best results in producing a smooth, satiny surface, use the special-purpose foot furnished with your accessories.

Adjusting Stitch Length

As Selector is Raised, Stitches Close Up





5. Sewing the Professional Way

construction details

SEAMS IN KNIT FABRICS

- Needle Position: Centre
- Stitch Width: **1** to **2**
- Stitch Length: About **20**

The zig-zag stitch is ideal for seaming knit fabrics. It is particularly desirable for underarm seams where elasticity and give are needed.

For neckline and waistline seams, where a stay is needed to prevent undue stretching, this same stitch can be used to apply seam tape. For a flat, smooth finish:

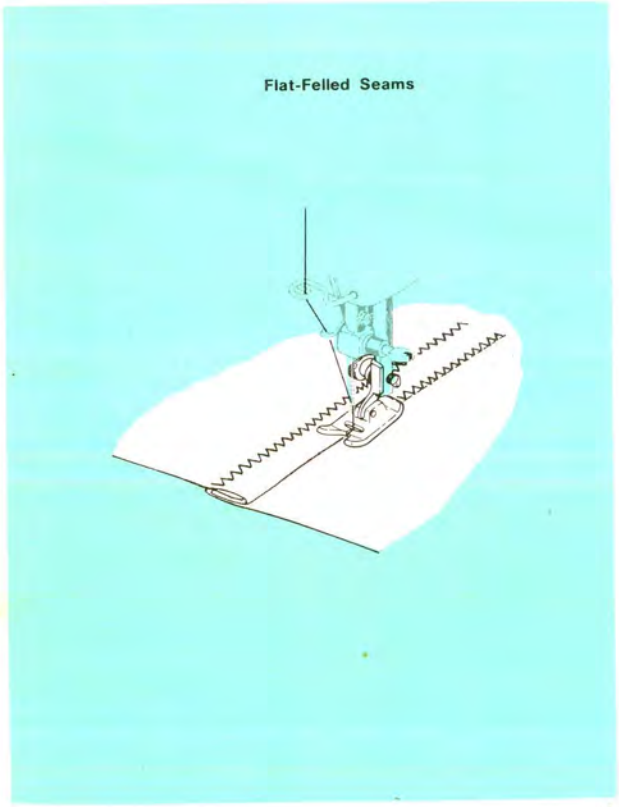
1. If seam is curved, pre-shape tape to fit by steam pressing.
2. Baste tape in place.
3. Stitch, allowing needle to alternately enter the seam tape and seam allowance.

LINGERIE SEAMS

- Needle Position: Centre
- Stitch Width: **2** to **3.**
- Stitch Length: **15** to **20**, depending on fabric

To make seams in lingerie both durable and flexible, use the zig-zag stitch. This treatment is particularly suitable for bias seams.

1. Straight-stitch the seam (with stitch width at **0**) on wrong side of fabric.
2. Press both seam allowances in the same direction.
3. Set stitch width at **2** or **3** and, from the right side, top stitch with zig-zag stitching, letting the needle alternately enter the seam line and seam thickness.



FLAT-FELLED SEAMS

- Needle Position: Centre
- Stitch Width: **2** or **3**
- Stitch Length: **1 5** to **20**, depending on fabric

Zig-Zag stitching gives strength and durability to flat-felled seams.

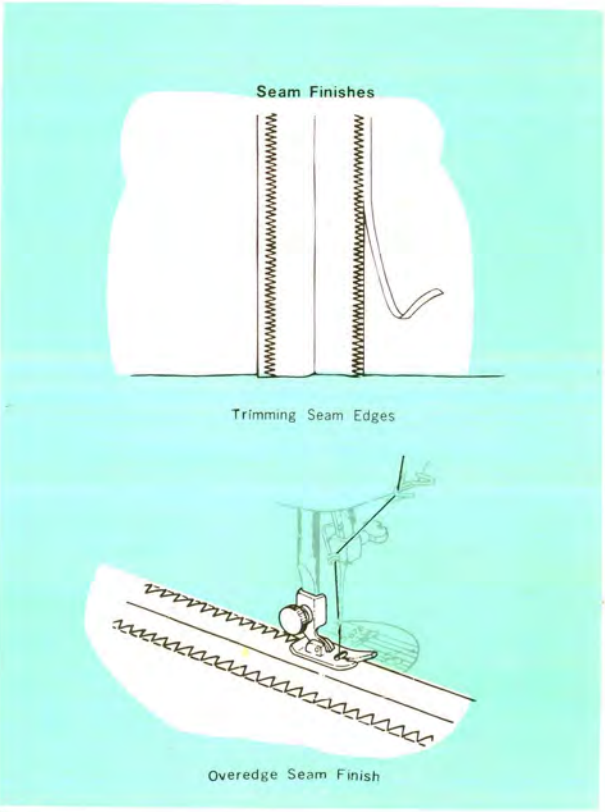
1. Stitch the seam on the right side of the fabric, taking full seam allowance.
2. Press seam allowance to one side, keeping the right side of the stitch on top.
3. Trim the under-seam allowance to one-half its width.
4. Turn the upper-seam allowance edge evenly over the trimmed edge and top stitch.

SEAM FINISHES

- Needle Position: Centre
- Stitch Width: **4** or **5**
- Stitch Length: **8** to **20,** depending on fabric

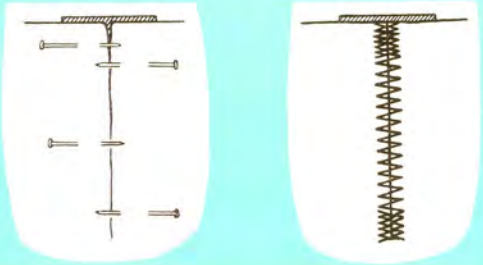
Seam edges support the garment and should be given a durable finish if the fabric is likely to ravel.

1. Adjust stitch width and stitch length settings to suit the fabric. Choose the settings that will give you the most "open" stitch that will secure the fabric edges; avoid harsh, over-stitched edges.
2. Trim seam edges evenly.
3. Place stitching *near* the edge of the seam allowance or *over* the raw edge as illustrated.
4. If stitching is placed *near* the edge of the seam allowance, trim away excess fabric after stitching.



Regular Dart

Steps in Making a Dart in Interfacing



DARTS

Darts can be made in the usual way on your sewing machine. That is you begin stitching at the wide end of the dart, stitch to the point, and then fasten the two thread ends.

Regular Darts

- Needle Position: Centre
- Stitch Width: **0**
- Stitch Length: About **12** or to suit fabric

1. Stitch from the seam edge, tapering gradually to the point.
2. Stitch beyond the fabric to form a thread chain 1/2 to 3/4 inch (1.5 to 2cm) long.
3. Tie the thread ends into a single knot close to the stitching.

Darts in Interfacing

- Needle Position: Centre
- Stitch Width: **5**
- Stitch Length: About **20** or to suit fabric

With zig-zag stitching, darts in interfacings can be shaped without bulk.

1. Cut out the dart allowance on the stitching line.
2. Bring raw edges together and pin or baste over a muslin stay.
3. Stitch, backstitching at both ends.

BUTTONHOLES

- Needle Position: Left
- Stitch Width: 3 and 5
- Stitch Length: Above 20
- Special-Purpose Foot

Make a test buttonhole on a sample of your fabric so you can adjust stitch length to produce a closely spaced, freely-feeding zig-zag stitch. Be sure to duplicate the thickness of the garment and include interfacing if appropriate.

Stitch Width Settings

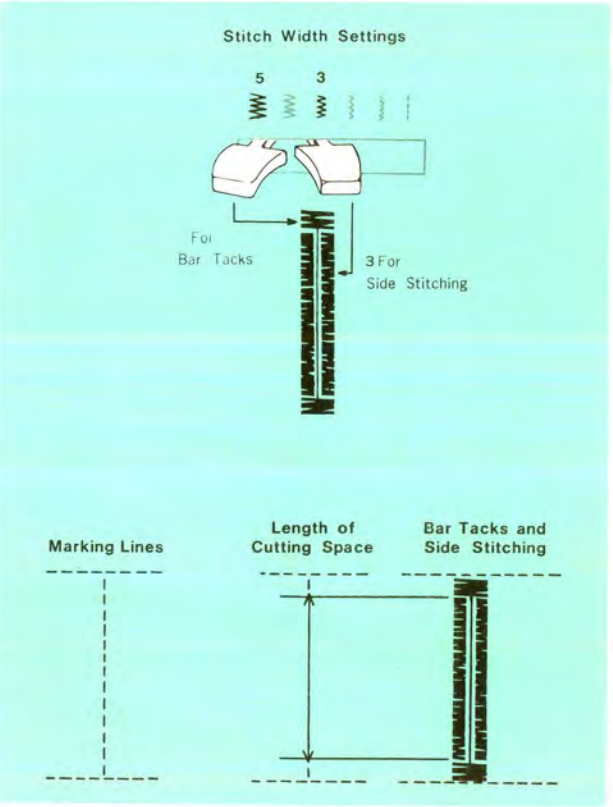
You will use two stitch width settings: for side stitching, stitch width 3, and for bar tacks (closings at ends of buttonhole), stitch width 5.

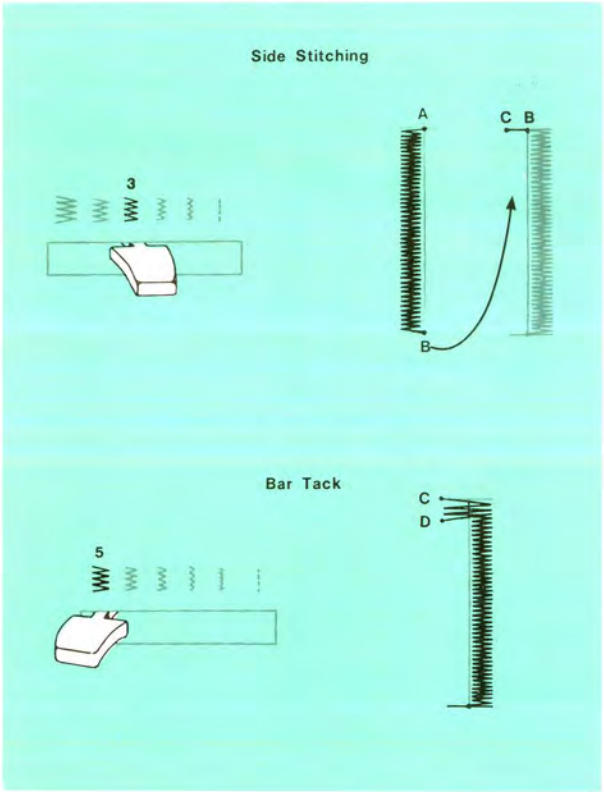
Buttonhole Length

The length of the buttonhole depends on the diameter and thickness of the button. To find the correct length:

1. Cut a small slit in a scrap of fabric and gradually enlarge it until the button slips through easily.
2. Add approximately 1/8 inch (2mm) at each end for bar tacks and mark the fabric as shown.

This bar-tack measurement is approximate; on some buttonholes, you may need to increase it or decrease it to arrive at pleasing proportions.





Procedure

Place work under the presser foot, aligning centre marking of buttonhole with the needle

Side stitching

Set stitch width selector at **3**. Position the needle in the fabric at point **A**. Lower the presser foot and stitch down left side to end of buttonhole marking, stopping at point **B**. Raise presser foot and pivot work on needle. Take one stitch at same stitch width setting bringing needle to point **C**.

Bar tack

Set stitch width selector at **5** and take approximately 6 stitches ending at point **D**.

Side stitching

Reset stitch width selector to **3** and stitch, stopping at point **E**.

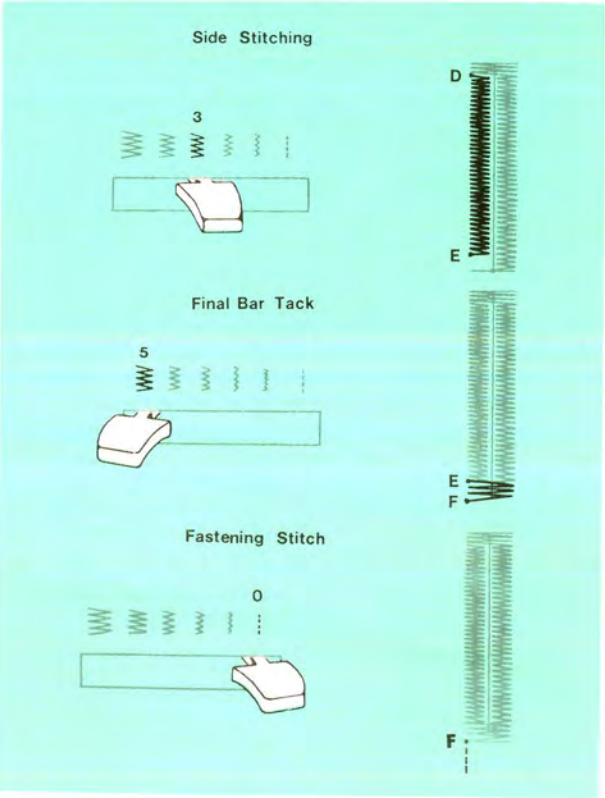
Final bar tack

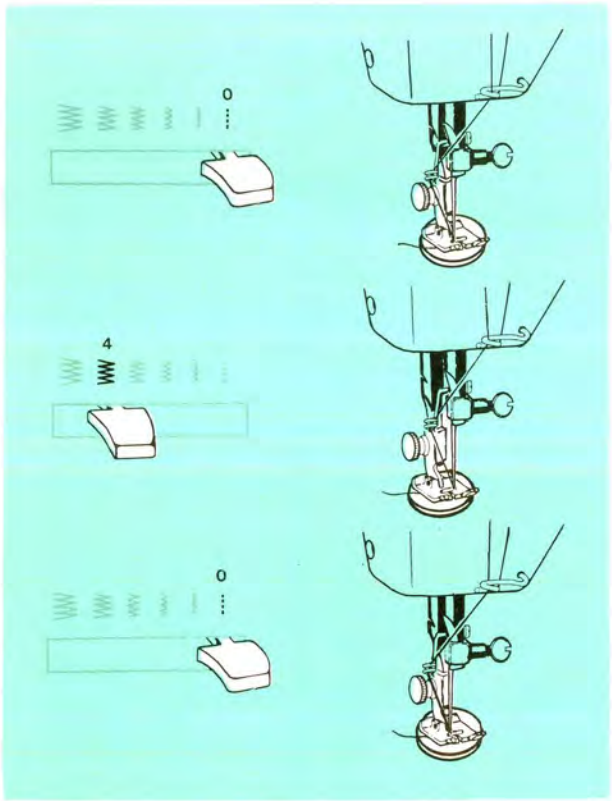
With needle in fabric, set stitch width selector at **5** and take approximately 6 stitches ending at point **F**.

Fastening stitch

With needle in fabric, set stitch width selector at **0**. and take approximately 3 stitches.

Remove work, draw threads to underside, fasten and trim. Cut opening for button with sharp scissors.





BUTTON SEWING

- Needle Position: Left
- Stitch Width: See illustrations
- Feed Throw-out Knob: To Right (Darning) Position

Flat buttons, one inch or more in diameter, can be sewn on by machine using the plain zig-zag stitch. Turn feed throw-out knob to right to lower the feed. Set stitch width at **0** and needle position at **left.**

Place button under presser foot and lower the needle into the left hole. Lower the presser foot and move the stitch width selector to a medium-wide zig-zag setting. Check stitch width setting by turning the hand wheel slowly toward you: increase or decrease width setting to suit hole-spacing of the button. Take six or more zig-zag stitches to attach the button. Move stitch width selector to **0** and take a few stitches in the left hole of the button to fasten threads.

keeping up appearances

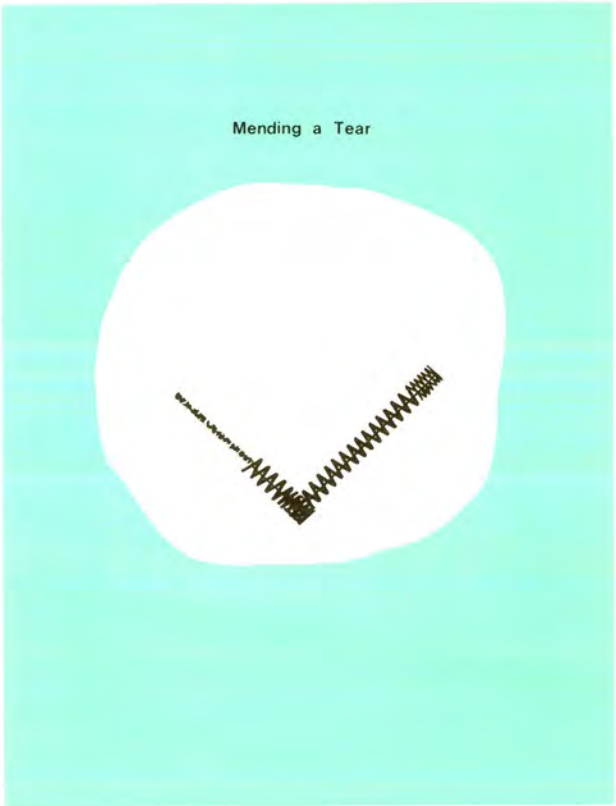
MENDING

The zig-zag stitch is just as useful for mending as it is for creative sewing. It forms a firm, flexible bond for repairing tears, replacing elastic and for making bar tacks to repair lingerie and to reinforce points of strain.

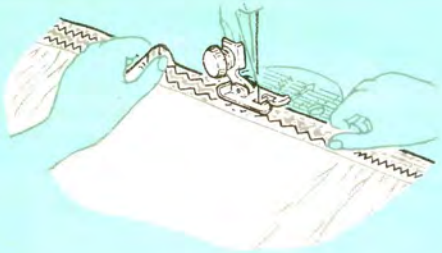
Mending a Tear

- Needle Position: Centre
- Stitch Width: **2** to **5**
- Stitch Length: About **20**

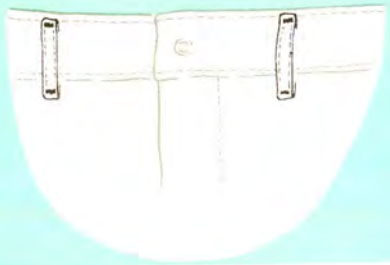
1. Trim ragged edges.
2. Place underlay on the wrong side of tear for reinforcement. (It is best not to baste or pin the underlay, since you will be bringing the edges together in the next step.)
3. Stitch on the right side, bringing the edges of the tear together. Shorten stitch length at ends and corners to give extra strength. Trim underlay.



Replacing Elastic



Bar-Tacked Belt Loops



Replacing Elastic

When replacing elastic, use the same settings as for "Mending a Tear."

1. Fit elastic for desired snugness at waistline, allowing one inch for joining. Lap the ends and join with zig-zag stitching.
2. Divide elastic band and garment waistline into quarters. Lap elastic over fabric and pin the two together at these intervals. Place pins at right angles to stitching line.
3. Take a few stitches to anchor elastic to fabric, then hold the elastic taut as you stitch so that it will remain stretchable after stitching is completed.

Bar Tacks

Bar tacks, to repair lingerie and attach belt loops, are made with the zig-zag stitch at a closed stitch length.

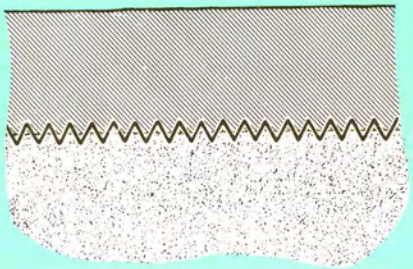
BLANKET BINDING

Often you can make an old blanket look almost new by replacing the binding.

- Needle Position: Centre
- Stitch Width: **5**
- Stitch Length: **1 5** to **20**

1. Remove worn binding and baste new binding in place.
2. Reduce pressure on fabric by turning pressure thumb screw counterclockwise and increase stitch length if necessary, so that blanket feeds freely.
3. Stitch, and remove basting.

Blanket Binding



Darning

DARNING

Worn or torn spots on children's clothes and household linens can be darned effortlessly and quickly with little practice.

Without Embroidery Hoop

- Needle Position: Centre
- Stitch Width: **0**
- Stitch Length: **10** to **15**
- Pressure: Very light

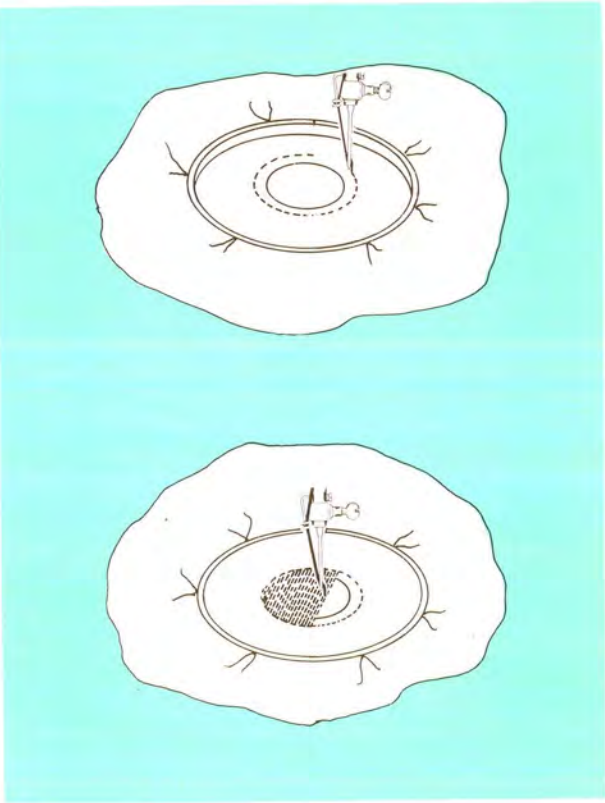
1. If area to be darned is open, baste an underlay in place.
2. Place area to be darned under presser foot; lower presser foot and start stitching, alternately drawing fabric toward you and pulling it *gently* away from you.
3. Continue this back and forth motion until you fill the area with parallel lines of stitching. For additional strength, cover area with crosswise lines of stitching.

With Embroidery Hoop

- Needle Position: Centre
- Stitch Width: 0
- Stitch Length: In FINE Area (Above 20)
- Feed Throw-out Knob: To Right (Darning) Position
- No Presser Foot
- Presser Bar Lowered

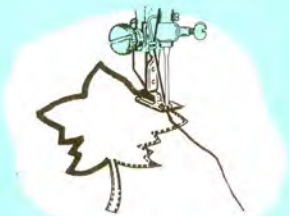
1. Trim ragged edged from area to be darned and centre worn section in embroidery hoop.
2. Position work under needle; lower presser bar to engage tension.
3. Hold needle thread loosely with left hand, turn hand wheel over and draw bobbin thread up through fabric. Hold both thread ends and lower needle into fabric.
4. Outline area to be darned with running stitches for reinforcement.
5. Stitch across opening, moving hoop under the needle at a slight angle from lower left to upper right. Keep lines of stitching closely spaced and even in length. When opening is filled, cover area with crosswise lines of stitching.

This method of controlling fabric movement with an embroidery hoop may be used to do embroidering and monogramming.



Method # 1-Trimming after Stitching

Method # 2-Stitching after Trimming



APPLIQUE

Applique adds beauty and interest to clothing and household linens. You can create your own design, trace a simple outline from a coloring book, or use a motif cut from a printed fabric. Fabrics of like or different textures combine equally well.

A closely spaced plain zig-zag stitch is used for applique work. Although you may vary stitch width to accommodate fabric weave and texture, never allow the stitch to be too wide. Make a test sample to help you decide which of the following methods is best for your fabric and design.

Preparation

- Baste applique design to fabric; outline design with a short, straight stitch.
- Remove basting and press.
- Attach the special purpose foot.

Method # 1-Trimming after Stitching

1. Set stitch width at desired setting. Adjust stitch length in the **FINE** area **(above 20)** of the stitch length control.
2. Outline the entire design with applique stitching.
3. Cut away the fabric on the outer edges of the stitching with embroidery scissors.

Method # 2-Stitching after Trimming

1. Trim outside fabric edges close to straight stitch outline of design.
2. Set stitch width at desired setting. Adjust stitch length in **FINE** area **(above 20)** of the stitch length control.
3. Overedge the design with applique stitching. This step will produce a smooth, lustrous finish that requires no additional trimming.

6.Caring for Your Machine

cleaning and lubricating

Your machine will serve you perfectly for many years if you keep it clean and lubricated. How often you will need to clean and lubricate the machine will depend on how often you use it.

CAUTION:*Before cleaning and lubricating the machine, disconnect the power-line plug from electrical supply.*

EVERY WEEK OR SO.....

Remove lint or fluff from exposed parts. With a soft cloth, clean:

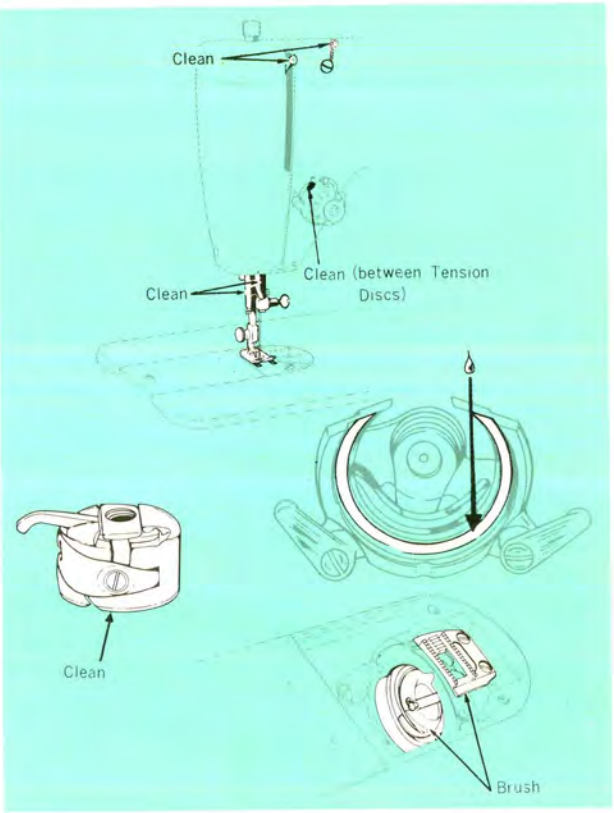
- Tension discs, presser bar and needle bar
- Take-up lever and thread guides
- Bobbin case, needle plate and slide plate
- Machine surface (If necessary, dampen the cloth and use a mild soap)

Remove needle plate by removing screws fastening it to machine bed and remove shuttle as instructed on page 40.

Using a brush, clean:

- Feed
- Shuttle area

After cleaning, apply a drop of SINGER*oil at points indicated at right and on pages 40 and 41.

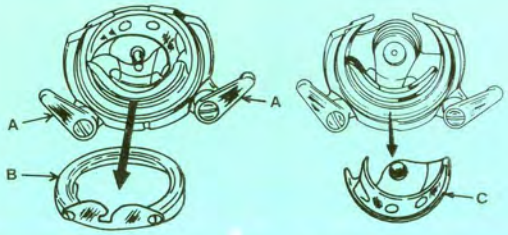


TO REMOVE AND REPLACE THE SHUTTLE

The shuttle can be removed for cleaning in the following manner.

1. Tilt machine back.
2. Turn hand wheel until needle bar is at its highest point.
3. Remove bobbin case. Push shuttle race gate latches **A** out toward left and right.
4. Remove shuttle race gate **B** and then shuttle body **C.** Clean and oil shuttle area.

To replace the shuttle, fit it in the reverse order.

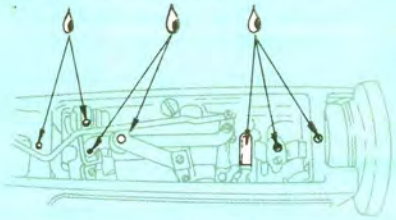


Removing the shuttle

TO OIL THE MACHINE

Remove two screws from top cover and lift cover from machine.

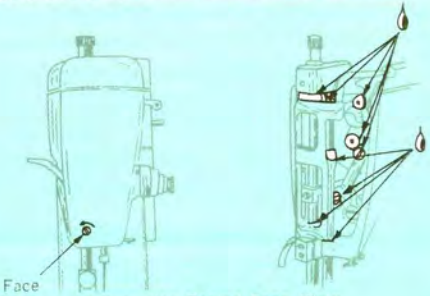
Apply a drop of oil to each place indicated.



Lubricating Top of Machine

Loosen screw on face plate and remove face plate.

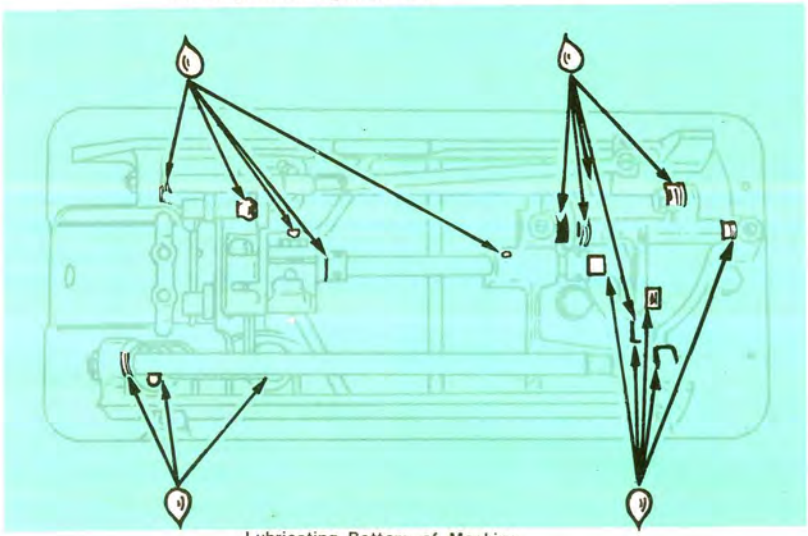
Apply one drop of oil to all points indicated.



Lubricating Behind Face Plate

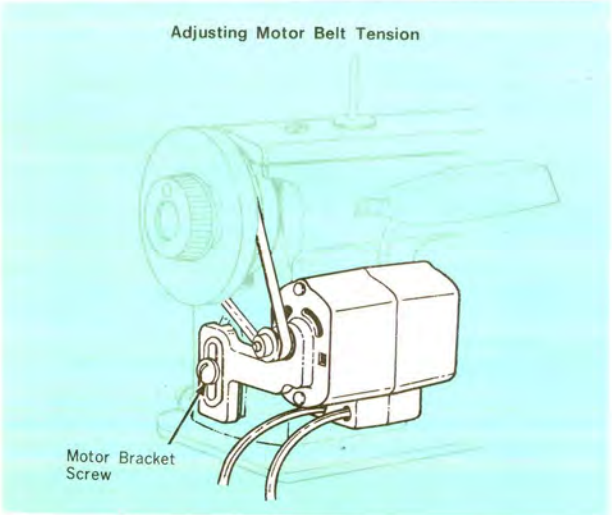
IF MACHINE IS TO BE STORED

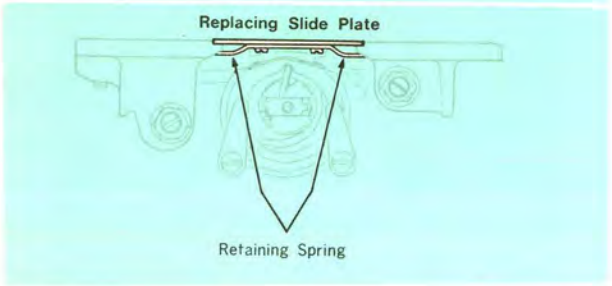
Before storing, thoroughly clean the machine to remove all traces of lint and fluff. Then swab all exposed metal parts and parts behind the face plate with a brush saturated with SINGER oil to protect against rust.



Lubricating Bottom of Machine

- Tilt machine back and apply a drop of oil to all points indicated.





adjusting motor belt tension

Tension on the motor belt should be just sufficient to keep the belt from slipping. If the motor belt needs adjustment:

- Loosen motor bracket screw a full turn.
- **To increase belt tension,** lower the motor bracket.
- **To decrease belt tension,** raise the motor bracket.
- Securely tighten motor bracket screw.

replacing the slide plate

You will not have any occasion to remove the slide plate. If it should accidentally become disengaged from the machine, it is easily replaced.

- Align back edge of slide plate with front end of slide way.
- Push slide plate back until retaining spring snaps into place.

performance checklist

Remember To...

- Plug machine into an electrical outlet.
- Turn hand wheel toward you to position needle and take-up lever.
- Start and finish sewing with the take-up lever in its highest position.
- Test stitch on a fabric sample before starting a sewing job.
- Replace bent or burred needles.
- Lower presser foot before setting pressure screw.
- Tighten hand wheel knob and move bobbin-winder switch to left after winding a bobbin.

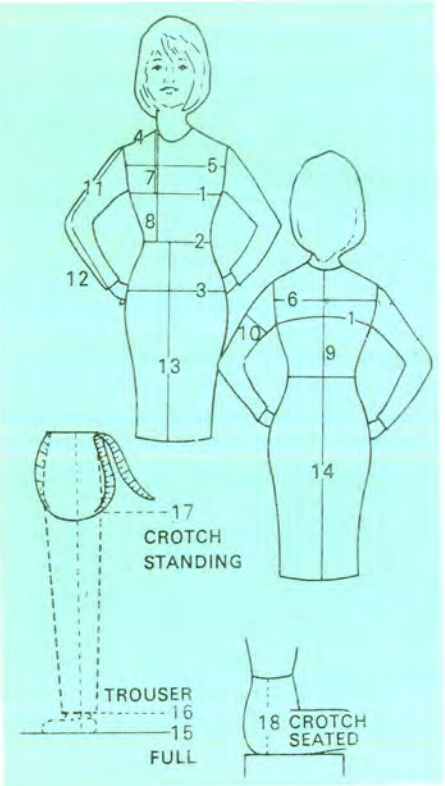
If Fabric Fails to Feed, Make Sure...

- Presser foot is in down position.
- Pressure screw is adjusted properly for the weight and texture of your fabric.
- Stitch length selector is properly set.
- Hand wheel knob is securely tightened.
- Lint has not accumulated around feed.
- Feed throw-out knob is turned to left (regular stitchihg) position.

If Thread Breaks, Make Sure...

- Machine is correctly threaded.
- Bobbin case is correctly inserted and threaded.
- Bobbin case area is free of lint and loose thread ends.
- Bobbin and bobbin case are not damaged.
- Needle is straight and securely tightened in clamp.
- Thread is suitable for size of needle.
- Thread is free of slubs and knots.
- Thread is unwinding freely from spool.
- Needle-thread tension is light enough.
- Needle slot in plate and presser foot are not damaged.

Enjoy Sewing!



Your personal measurement chart

This chart will enable you to keep a record of your measurements. You will need the assistance of someone to help you take the measurements carefully with an accurate tape measure.
The figures (below) show where the tape measure should be placed when taking each measurement.

c.m.(inches)

1. BUST—*Fullest part — slightly higher in back* .....
2. WAIST—*Around natural waistline* .....
3. HIP—*inches below natural waistline (fullest part)* .....
4. SHOULDER—*From base of neck to top of arm* .....
5. FRONT BODICE WIDTH—*From armhole to armhole 5" (12.70 c.m.) down from centre shoulder* .....
6. BACK BODICE WIDTH—*From armhole to armhole 4" (10.16 c.m.) down from centre shoulder* .....
7. SHOULDER TO BUST—*From neck base at shoulder to a line even with point of bust* .....
8. FRONT WAIST LENGTH—*From neck base at shoulder over fullest part of bust to waistline* .....
9. BACK WAIST LENGTH—*From the prominent bone at base of neck to natural waistline* .....

c.m.(inches)

10. SLEEVE WIDTH—*Around arm at upper edge of underarm seam* .....
11. SLEEVE LENGTH—*Shoulder to elbow* .....
12. SLEEVE LENGTH—*Elbow to wrist* .....
13. FRONT SKIRT LENGTH—*Down centre from waistline to hem* .....
14. BACK SKIRT LENGTH—*Down centre from waistline to hem* .....

TROUSER MEASUREMENT CHART

15. FULL LENGTH—*Waist to floor at side seam* .....
16. TROUSER LENGTH—*Waist to ankle* .....
17. CROTCH SEAM (standing)— .....
18. CROTCH DEPTH (seated)—*Waist to chair at side seam* .....

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